

2019 Annual Water Quality Report

Water Testing Performed January 1 - December 31, 2019
and may include earlier monitoring data

West Kern Water District



This brochure is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

This 2019 Annual Water Quality Report describes in detail the quality of your water during 2019. As in previous years, your water met all U.S. Environmental Protection Agency (USEPA) and State drinking water health standards. You will find further explanation of the requirements and test results in the accompanying pages.

The State Water Resources Control Board Division of Drinking Water (DDW) requires community water systems to publish and make available an annual Consumer Confidence Report to provide background on the quality of your water and to show compliance with federal and state drinking water standards.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.
(This report contains important information about your drinking water. Translate it, or speak with someone who understands it.)

Water...

In order to ensure tap water is safe to drink,

U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Board) prescribe regulations which limit the amount of certain contaminants in the water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health. Additional information on bottled water is available on the California Department of Public Health website (<https://www.cdph.ca.gov/Programs/CEH/DFDCS/Pages/FDBPrograms/FoodSafetyProgram/Water.aspx>).

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline 800-426-4791

Contaminants that may be present in source water include

Microbial contaminants

Such as viruses and bacteria, can be naturally occurring or come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Pesticides & herbicides

May come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

Radioactive contaminants

Can be naturally-occurring or be the result of oil and gas production and mining activities

Inorganic contaminants

Such as salts & metals, can be naturally occurring or result from urban storm water run-off, industrial or domestic wastewater discharge, oil and gas production, mining, or farming.

Organic chemical contaminants

Are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

Lead & Copper - Every 3 years, WKWD is required to sample for lead and copper at specific customer taps as part of the Lead & Copper Rule. Lead and copper are also tested on source water supplies. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. No traces of lead were detected in WKWD's water sources. Lead in drinking water comes primarily from materials and components associated with service lines and home plumbing. The District is responsible for delivering high quality water but cannot control the variety of materials used in customer plumbing systems. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using the water for drinking or cooking.

If you are concerned about lead in your water, you may wish to have your water tested by a private lab. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from US EPA Safe Drinking Water Hotline or at www.epa.gov/lead.

Are you at risk?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, and those with HIV/AIDS or other immune system disorders; some elderly people; and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

EPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

One of our most valuable resources. West Kern's water supply comes from a contract with the Kern County Water Agency for State Water Project water. The water is transported through the California aqueduct, where it is recharged into the ground through our spreading ponds. Your water is extracted from the Tulare Lake aquifer from 13 groundwater wells located in the northeast corner of the District, in the underflow of the Kern River Sub-basin and from an area north and adjacent to the State of California's Tule Elk Reserve. The water is then transported through a 36" transmission pipeline to our Station A facility located at the corner of Highway 119 and Golf Course Road where it is treated with chlorine before being disseminated to 318 miles of pipeline, 26 above ground water storage reservoirs and 15 booster pump stations. The District has one of the most complex systems in California and our employees are dedicated in ensuring you have a reliable and high quality water service at a reasonable cost.

Drinking Water Source Water Assessment

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs & wells. As water travels over the surface of the land or through the ground, it can dissolve naturally-occurring minerals and, in some cases, radioactive materials, and can pick up substances resulting from the presence of animals or from human activity.

An assessment of West Kern's drinking water sources was completed in May 2001. The sources are considered the most vulnerable during artificial recharge activities in spreading basins, but these activities have not been associated with any detected contaminants. For more information contact Wendy Adams-Rosenberger at 661-763-3151.

To interpret the tables, you may need the following definitions

AL: Regulatory Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other required action by the water provider.

MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. Primary MCL's protect public health and are set as close to the PHGs or MCLGs as are economically and technologically feasible. Secondary MCLs relate to the odor, taste, and appearance of drinking water

MCLG: Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the United States Environmental Protection Agency (EPA) and allow a margin of safety.

MRDL: Maximum Residual Disinfectant Level: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG: Maximum Residual Disinfectant Level Goal: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

N/A: Not Applicable

ND: Not Detected

NL: Notification Level: A health-based advisory level for an unregulated contaminant in drinking water. It is used by the Department of Drinking Water (DDW) to provide guidance to drinking water systems.

PDWS: Primary Drinking Water Standards: MCLs, MRDLs and treatment techniques (TTs) for contaminants that affect health, along with their monitoring, reporting, and water treatment requirements.

PHG: Public Health Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by EPA without regard to cost or available detection and treatment technologies.

SDWS: Secondary Drinking Water Standards: MCLs for contaminants that may adversely affect the taste, odor, or appearance of drinking water. These are aesthetic considerations that **don't impact health**.

TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

Data Table Units

NTU - Nephelometric Turbidity Unit

mg/L - milligrams per liter or parts per million (ppm)

pCi/L - picocuries per liter (measurement of radioactivity)

ug/L - micrograms per liter or parts per billion (ppb)

µS/cm - measure of electrical conductivity

Unregulated Contaminant Monitoring Rule (UCMR)

The U.S. EPA requires utilities to sample for emerging contaminants as part of this rule. Every 5 years the US EPA prepares a list of unregulated contaminants for drinking water suppliers to analyze. UCMR results are then used to assist in the development of future drinking water regulations. The District completed UCMR3 testing in 2013 & UCMR4 testing in 2018.

Water Hardness

A measure of the amount of minerals, generally calcium & magnesium, water contains. Hard water is generally not a health concern, but it can lead to mineral buildup in pipes, water heaters, and swamp coolers. Water is considered soft if it is less than 75 ppm and very hard at 300 ppm. West Kern's water shows an average of 121 ppm.

Turbidity

A measure of the cloudiness of the water. It has no health effects but we monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

Disinfection By-Products

West Kern Water uses chlorine to disinfect its groundwater sources. Disinfection By-Products (DBPs), which include Total Trihalomethanes (TTHMs) and Haloacetic Acids (HAA5), are generated by the interaction between naturally occurring organic matter and disinfectants such as chlorine. TTHMs and HAA5 are measured annually at two locations in the distribution system.



Water Quality Table of Detected Contaminants Contaminants Regulated by Primary Drinking Water Standards

Contaminants (units)	Year Tested	MCL (SMCL)	PHG (MCLG)	Range	WKWD Average	Typical Source
Aluminum (mg/L)	2018-2019	1	0.6	ND-.010	.007	Erosion of natural deposits; residual from some surface water treatment processes
Arsenic (ug/L)	2018-2019	10	4	ND-3.44	1.14	Erosion of natural deposits
Antimony (ug/L)	2018-2019	6	1	ND - 1.66	0.113	Discharge from petroleum refineries, fire retardants, ceramics solder
Barium (mg/L)	2018-2019	1	2	.02-.013	0.02	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Total Chromium (ug/L)	2018-2019	50	(100)	ND-4	.30	Erosion of natural deposits
Fluoride (mg/L)	2018-2019	2	1	ND-0.15	0.051	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate as Nitrogen (mg/L)	2019	10	45	ND-4.6	1.38	Runoff and leaching fertilizer use
Gross Alpha (pCi/L)	2018-2019	15	0	0 to 29	11.20	Erosion of natural deposits
Uranium (pCi/L)	2018-2019	20	0.43	0 to 23	11.88	Erosion of natural deposits
Disinfection Byproduct under Stage 2 DBP Rule	Year Tested	MCL (SMCL)	PHG (MCLG)	Range	WKWD Average	Typical Source
Total Haloacetic acids (ug/L)	2019	60	N/A	2.9	2.9	By-product of drinking water chlorination
Total Trihalomethanes (ug/L)	2019	80	N/A	17-19	18	By-product of drinking water chlorination
Disinfectant Residual (mg/L)	2019	4	4	0.13-0.24	0.19	By-product of drinking water chlorination
Microbiological Contaminants	Year Tested	Unit	MCL (SMCL)	PHG (MCLG)	Highest # of Detections in a Month	Typical Source
Total Coliform Bacteria	2019	positive samples	Less than 5% positive	(0)	1	Naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present
Fecal Coliform and E. Coli	2019	positive samples	0 positive	(0)	0	E. Coli are bacteria whose presence indicates that the water may be contaminated with human or animal fecal waste

Inorganic Contaminants with Action Levels

Contaminants (CCR Units)	Year Tested	AL	PHG (MCLG)	90 th Percentile	Range	No of Schools Requesting Lead Samples	Typical Source
Copper (mg/L)	2018	1.3	0.3	0.91	30 sites sampled; 0 sites over action level	N/A	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ug/L)	2018	15	0.2	1.1	30 sites sampled; 1 site over action level	13	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Contaminants with Secondary Drinking Water Standards

Inorganic Chemicals (units)	Year Tested	MCL (SMCL)	Range	WKWD Average	Typical Source
Aluminum (ug/L)	2018-2019	200	ND - 10	7	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (mg/L)	2018-2019	500	27 - 57	44.17	Erosion of natural deposits; seawater influence
Copper (mg/L)	2018-2019	1	ND-.013	.0013	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Iron (ug/L)	2018-2019	300	ND - 130	53.07	Leaching from natural deposits; industrial wastes
Silver (ug/L)	2018-2019	100	ND-3	.23	Industrial discharges
Specific Conductance (µS/cm)	2018-2019	1600	320 - 947	541	Substance that forms ions when in water; seawater influence
Sulfate (mg/L)	2018-2019	500	18 - 271	97.32	Runoff/leaching from natural deposits; industrial waste
Total dissolved solids (mg/L)	2018-2019	1000	200 - 688	353	Runoff/leaching from natural deposits
Turbidity (NTU)	2018-2019	5	.11- 3.22	0.67	Soil runoff
Zinc (mg/L)	2018-2019	5	ND - .049	0.006	Runoff/leaching from natural deposits; industrial wastes

Sampling Results for Sodium and Hardness

Constituents (units)	Year Tested	MCL (SMCL)	PHG (MCLG)	Range	WKWD Average	Typical Source
Hardness (mg/L)	2018-2019	None	None	72 - 245	121	“Hardness” is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.
Sodium (mg/L)	2018-2019	None	None	38 - 96	59	Refers to the salt present in the water and is generally naturally occurring.

Other Detected Constituents that May be of Interest to Consumers

Constituents (units)	Year Tested	Notification Level	Range	WKWD Average	Health Effects
Boron (mg/L)	2016	1	ND-.25	0.10	Boron exposures resulted in decreased fetal weight (developmental effects) in newborn rats.
Alkalinity (mg/L)	2018-2019	None	32 - 130	88.73	
Calcium (mg/L)	2018-2019	None	26 - 64	41	
Magnesium (mg/L)	2018-2019	None	0.20 - 4	1.28	
pH (pH)	2018-2019	None	7.8 - 8.3	8	
Potassium (mg/L)	2018-2019	None	ND - .80	0.26	

West Kern Water is required by State & Federal regulations to test your water for more contaminants than are shown in the tables above. These tables list only those contaminants that were detected.

Public Participation

West Kern Water District's Board of Directors meet on the fourth Tuesday of each month at 6:00 p.m. in the District Board Room located at 800 Kern Street, Taft. Meeting agendas are posted at the District office as well as on the District's website and the public is encouraged to attend.



If you have any suggestions, questions, or concerns, or require further information regarding this report please contact Wendy Adams-Rosenberger at 661-763-3151 or through the District's webpage at www.wkwd.org.

Prohibited Practices

- **Cars may only be washed with hoses that have an automatic shutoff nozzle.**
- **Water cannot be used to clean sidewalks or driveways unless there is a health & safety issue.**
- **Outdoor landscapes may not be watered in any way that causes runoff.**
- **Outdoor landscapes may not be watered at all for 2 days after any measurable rainfall.**

Contact the District for information on residential audits, rebates, kits and other tools to help you save water.



West Kern Water District encourages customers to maintain a water efficient lifestyle